

DESCRIPTION OF A NEW SPECIES OF *ÆGIALE* AND NOTES ON SOME OTHER SPECIES OF NORTH AMERICAN LEPIDOPTERA.

BY HERMAN STRECKER.

Ægiale Cofaqui, nov. sp.

♀. $2\frac{1}{6}$ inches in expanse. Head dark brown; palpi whitish; thorax brown, mixed with hoary, posterior half, above, clothed with yellowish hair; abdomen brown; antennæ black above, white beneath, terminations black.

Upper surface of wings blackish-brown. Primaries with an exceedingly irregular, bright, deep yellow band, extending from vein 1 to the subcostal nervure; the outer edge of this band is rather regular from veins 1 to 4, though further removed from the exterior margin at the latter than at the former; from veins 1 to 2 it is narrow, from veins 2 to 4 it is nearly three times as broad extending to where vein 3 joins the median vein, the balance of it is within the discoidal cell and is narrow, of about the same width as it is between veins 1 and 2; the portion of this nearest the costa is paler in color than the rest. Between veins 4 and 6, exterior to this band, is a mark composed of two small almost connected yellow spots. Interior to these, between veins 6 and 9, is a narrow yellowish-white mark. Midway between the inner edge of the large yellow band and the base of wing, and between veins 1 and 2, nearest to the latter, is a roundish yellow spot. Inner half of base covered with rich yellow hair. Fringe yellowish-white, alternated with dark brown at terminations of veins.

Secondaries. Basal third, especially in inner part, heavily clothed with rich yellow hair and scales. A band of four yellow spots, separated only by the veins, cross the wing beyond the middle; from this band towards the costa, opposite the apex, is another quite small yellow spot, which is succeeded by a larger one near to the costa, nearly midway between the apex and base of wing. Outer margin between the veins yellow, forming patches more or less triangular, with the points inwards. Fringe yellowish-white.

Under surface. Primaries brown, not as dark as above, and shaded at outer margin and apex with hoary; no yellow at base of wings. Markings as above, excepting that the yellow band is

continued from its lower end to, and connected with, the yellow spot between it and the base, and between veins 1 and 2.

Secondaries. Hoary or whitish-gray, dark-brown along costa, especially towards the base. Towards anal angle, a pure white spot, corresponding in position with the first of the series of four that compose the yellow band of upper side; each of the remaining yellow spots of upper surface, and the next one of the two, between them and the costa, is represented by a small dark-brown spot, or rather row of continuous spots; the last towards costa is replaced by one of pure white; half way between this latter spot and the base is another white spot, and also one in discoidal cell, from which a dark-brown line extends to near abdominal margin. Fringes white and brown.

In markings of upper surface, this species resembles somewhat closely the lowermost of Boisduval's figures on plate 70, in the Lep. Am. Sept., but the outline of the wings is entirely different. In the present species the primaries are much produced at veins 2 and 3, and from veins 3 to 7 they are hollowed, making the wing most decidedly fulcate, though the apex is very slightly rounded. The inferiors are narrow, even between the apex and abdominal angle, and the wing at the former is not rounded, but the costa and exterior margins meet at almost a right angle. As far as outline goes this species has no possible resemblance to Boisduval's figures, or to the species he purports to represent, the history of which has been given in full detail by Prof. Riley, in Trans. St. Louis Acad. Sc. That species, *A. yuccæ*, has much longer and comparatively narrower fore wings, and the shape of exterior margin of these is just the reverse of the present described species, the hind wings are also as entirely different in shape as can be in two insects generically the same. The under surface of inferiors in *yuccæ* is brown, broadly bordered with whitish-gray, especially at the costa, and with a large triangular white spot below costal vein about one-third the distance (from base), between base and apex. The present species has under surface of secondaries grayish, with dark-brown costa, and four conspicuous white spots on various parts of the wing. Boisduval's lower figure may have been intended to represent this insect, but his upper two figures show the upper and under surface of *yuccæ*, though none are correct as regards shape of wings, especially of the inferiors. All three figures on his plate were either drawn from three different examples, or the

artist was most culpably careless, as none are of same size, or agree in outline, though the presumption would naturally be, that the middle figure with wings erect, was intended to represent the under surface of one of the others. What leads me further to suppose that two species are figured on Boisduval's plate, is that the lowermost figure has the small spot on inner half of primaries, of which Prof. Riley says, that of the ten specimens of *yuccæ* he had examined, "none of them have the spot on primaries, indicated in one of Boisduval's figures, just within the middle of the wing and below vein 2."

I have placed this insect in *Ægiale*, where, with *yuccæ*, I think it belongs; Selder's *Megathymus* I consider but a synonym of Felder's genus.

The example from which the foregoing description was made was captured in Georgia.

Papilio Indra, Reakirt. ♀.¹

Same size as ♂. Primaries somewhat falcate, broader and less produced apically. Secondaries more rounded exteriorly; the rudimentary tail even less conspicuous than in the other sex; macular bands on all wings nearly twice the breadth, on secondaries covering part of the discoidal cell. The discal bar of primaries better defined, and at two lines distance inwardly succeeded by another parallel bar, which on the under surface is widened into an ovate spot. In other particulars same as ♂.

Two ♀ examples taken by Mr. Dunean Putnam, July 1st, 1872, in Clear Creek Cañon, between Golden City and the Forks of the Creek, Colorado.

The example above described, through the courtesy of Mr. Putnam, has passed into my keeping, the other, which is still in that gentlemen's collection, differs mainly in the mesial band of secondaries being entirely exterior to the discoidal cell.

These are the only females that I have yet heard of, and no males were seen by Mr. Putnam, nor have any been taken, to my knowledge, since the original types, captured by Mr. Ridings in 1864, on Pike's Peak, Colorado.

¹ ♂ described in Proc. Ent. Soc., Phil. VI. p. 123 (1866), and figured by myself in T. II. Lep. Rhop. et Het.

Cossus nanus, nov. sp.

Expands $1\frac{1}{8}$ inches. Has the appearance of a miniature *Cossus ligniperda*, is gray, of lighter and darker shades, and reticulated with black lines which are most noticeable across the disk and on the terminal part of wing. Secondaries uniform grayish. Beneath grayish, faintly reticulated.

Hab. Colorado.

Arctia cervinoides, nov. sp.

Expands $\frac{7}{8}$ inch. Head black, white above the eyes. Collar white, with two black bars. Thorax white, with three black bands as in *Nais*, and others. Abdomen black above; at sides and beneath, each segment is broadly edged with white.

Upper surface. Primaries white, marked with black almost exactly as in *Phyllira*, Drury. Secondaries with obscured grayish, ill-defined marks almost semi-diaphanous, resembling those of *Quenselii*, Payk.

Under surface marked as above, but paler on primaries.

Entirely distinct from all known North American species, nearer to *Quenselii*, from Fabr., and *Cervini*, Fall., from summit of Alps, than any others I wot of. It is from Colorado.

Cymatophora magnifica, nov. sp.

♂. Expands $1\frac{1}{2}$ inches. Head and collar chestnut-brown; antennæ pectinated and brownish; thorax ashen-white, with a few scattered brown atoms; abdomen brown; legs clothed heavily with whitish-gray hair.

Upper surface. Primaries lustrous brownish-gray or ashen; the outer space, forming a large oval spot extending from apex to inner angle, is brownish-yellow of a somewhat golden tint; this space, as well as the whole upper wing, reminds one strongly of *Phalera Bucephala*, Lin.; on the outer edge of this terminal space, midway between the apex and inner angle, is a parallelogramic brown spot; the inner margin also of this terminal space is edged irregularly with brown marks; the part of the wing adjoining this is paler than the rest; at base of wing is also a pale patch same color as thorax; the whole surface of wing, except the yellow terminal space, is more or less reticulated or flecked with dark brown; none of these reticulations are very conspicuous, except a few which form an abbreviated slight transverse band, which extends neither to costa nor inner margin, and is distant from thorax about

one-third of the length of the wing. Secondaries brown, with paler fringes; they are remarkably produced at the outer angle.

Under surface brown, with indistinct reticulations; the square mark on outer margin, midway between apex and inner angle, is repeated.

Hab. Florida, captured by Mr. J. Doll.

It is doubtful if this is by any means a true *Cymatophora*, though it undoubtedly belongs to the *Cymatophoridae*, HS.; the pectinated antennæ would seem to indicate a position near the insect described as *Dicopis muralis*, Grote, but there is plenty of room for any one who has the inclination to make a new genus for its reception. For my part, I would take infinitely more pleasure in doing away with many of the genera erected of late on trifling grounds, than in adding to the confusion by creating new ones.

Cosmia perophoroides, nov. sp.

Expands $1\frac{3}{8}$ inches. Head and thorax pale brownish, insensibly fading into yellowish-white as it nears the abdomen, which latter is also yellowish-white; tarsi dull crimson.

Upper surface. Primaries, same yellowish or tawny-white as in the Bombyeid *Perophora Melzheimeri*, which the whole insect superficially resembles in color and ornamentation; the costa, outer and inner margins, edged with a dull crimson line; the whole surface of wing powdered with minute crimson scales; a narrow crimson transverse anterior line, elbowed outwards almost at a right angle in its middle, crosses the wing from costa to inner margin, as also does a transverse posterior line of same color; this latter is rather straight, making but a slight curve a short distance from the costa. Secondaries white, powdered, not heavily, with red at outer margin; fringes white.

Under surface. Primaries, basal third, white, rest reddish, paler towards outer margin, which is edged with a narrow red line, as is also costa and inner margin. Secondaries white, bordered with a few minute red scales on costa and at apex.

Taken in Florida by Mr. J. Doll.

Phrygonis argentistriata, nov. sp.

Expands $1\frac{3}{8}$ inches. Much the same silky gray or dove-color as in *P. cultaria*, Geyer, to which it is closely allied; but differs in the gray being a little more inclined to brownish, less bluish, in the inner edge of band that crosses all wings being very much

less silvered, and in veins of hind wings being yellow, narrowly edged with black, from inner edge of this band to past the middle of wing, the yellowish veins being continued or shot off from the yellow of cross band; the sub-basal band of primaries is irregular and strongly elbowed in middle; whilst in *cultaria* it is straight from inner margin to costa. Near the angle produced at middle of exterior margin of secondaries, is a rather large oblong dark red spot, tipped at its outer end with silver; near this, on side towards abdominal margin, is a smaller triangular spot of same color, also with a little silver at outer end; between this and anal angle are two more spots of red and silver, but quite small. The band common to both wings is not nearly so strongly elbowed outwardly in its middle as it is in *cultaria*, and the space between this band and outer edge of secondaries in that, is not nearly so broad as in the species at present described.

Florida, from Mr. J. Doll.

Euclea pænulata, Clemens, Proc. Acad. Nat. Sci. Phila., p. 159 (1860), is the insect lately redescribed under the name of *Parasa incisa* by Dr. Leon Harvey in Can. Ent., p. 5, vol. viii, 1876. His type he received from Belfrage in Texas, who also sent me examples of it, which, as above stated, turned out to be Clemens' species.